Assault Injuries in the Fort Defiance Service Unit.

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In the Fort Defiance Service Unit (FDSU), assaults rank second among the leading causes of injury hospitalization and death. Yet, little is known at the community level about the etiological factors associated with interpersonal violence, much less how to prevent it. The purpose of the study is to develop an epidemiological framework to help understand assault injury trends and suggest strategies to prevent interpersonal violence.

METHODS:

A total of 397 assault injury cases reported to service area hospitals (Ft. Defiance and Sage Memorial) in 1995 were reviewed and documented for this study. Data was obtained from ER logs and hospital records, cross-referenced with police records, then entered into the data base. The findings were classified in terms of frequency distribution with respect to assault type, injury type and severity, demographics (i.e. age and sex) and other possible contributing factors. The following criteria were used: (1) the case definition was based on the E-coding system; (2) the target population included all subjects who were assault injury victims within the jurisdiction of the FDSU in 1995; (3) only assault cases which received medical attention at FDSU hospitals were considered; (4) Navajo police records were reviewed for additional assault fatality cases in which hospitals were not involved. In order to protect the identity of the subjects used in this study, no names were entered into the data base; (5) costs were estimated for initial ER treatment and subsequent hospitalization care. Information on referral services (social services, mental health) was obtained and used for cost-assessment purposes.

A cross-sectional survey was also conducted to assess public awareness about violence at the community level. 222 subjects were randomly contacted throughout the FDSU and asked to respond to a written questionnaire concerning assaultive violence since 1991.

RESULTS:

Table 1. Assault cases reported to local hospitals in 1995

Severity of assault	Count	Percent	Rate per 10,000
Outpatients	307	77%	107.3
Hospitalizations	81	20%	28.3
Fatalities	9	2%	3.1
Total	**397**	**100.0%**	**138.8**

Demographic Distribution of Assault Injuries

The race and ethnicity of neither the victim nor the assailant were recorded. However, the population of the FDSU is 95.7% Navajo. Among the 397 assault injury cases, 212 (54%) of the victims were males and 185 (46%) were females. All 9 of the fatalities and 64 (79%) of the hospitalizations were males. As for assailants, a total of 450 offenders were implicated in the 397 cases. This is because some assaults were committed by more than one assailant. Among these, 246 (54.7%) were males, 45 (10%) were females, and 159 (35.3%) were not identified by gender. 148 (37%) of the assaults occurred in the 20-29 age group, 91 (23%) in the 30-39 age group, and 84 (21%) in the 10-19 age group. In other words, most assault victims (81%) ranged in age between 10 and 39 years. Overall, the average age of a typical assault victim was 29 years. Since most offenders were not caught, victims were not able to estimate their age. However, among the 27 cases in which an assailant's age group could be approximated, 67% of the offenders ranged in age between 16 and 20 years old,

Type of Assault and Nature of Injury

There are four legal categories used to designate nonfatal types of assaultive violence: aggravated assault, simple assault, rape or sexual assault, and robbery . In this study , domestic violence accounted for 155 (39%) of the assaults; attack 131 (33%) and brawl 81 (20.4%). Rape (4.3%), gang violence (1.8%), and child abuse (1.5%) were not reported in significant proportions. Women were victims of domestic violence and rape in extremely higher proportions than men, whereas men were involved in attacks and brawls more frequently than women. Almost 80% of the injuries in this study consisted of contusions (43.8%) and lacerations (36%).

Type of Weapon Used and Severity of injury

The primary weapon used in these assault cases was bodily force (i.e., fist or foot) in 210 (52.9%) of the cases. Offenders were armed with a sharp object (i.e., knife) in 49 (12.3%) of the cases, a blunt object in 63 (15.9%) of the cases, and a gun in 6 (1.5%) of the cases. Other nonspecific types of weapon were used in the remaining 69 (17.4%) of the cases. 189 (47.6%) of the assaults were coded E960.0 (Unarmed fight or brawl); 62 (15.6%) were coded E968.2 (Striking by blunt or thrown object); 53 (13.4%) were coded E968.8 (Other unspecified means); and 51 (12.8%) were coded E966.0 (Assault by cutting or piercing instrument). The remaining 10% of the cases were variably coded. Because more lethal weapons were not frequently used, there were relatively few fatalities compared to the number of hospitalizations and outpatient visits. The majority of assaults (77.3%) resulted in outpatient hospital visits. Hospitalizations accounted for 20.4%, and fatalities for less than 3%.

Factors Associated with Assault Injuries and Victim-offender relationship

Alcohol and drug abuse has a physiological effect on the brain that reduces inhibitions against aggressive behavior. Therefore, it influences the risk of both victimization and perpetration of violence. Alcohol was suspected in 187 (47.1%) of the victims. Normally, urine testing for substance abuse and measurements of alcohol blood levels are not routinely done on assault victims receiving treatment at IHS facilities. Therefore, alcohol and drug findings were merely subjective observations. Drug use and mental handicap were negligible in this study. No impairment was noted in 46 ((11.3%) of the victims. In 41%, the mental status of the victim could not be determined.

Victims were assaulted by a family member in 165 (41.6%) of the cases; by an acquaintance in 24 (6%) of the cases; and by a total stranger in another 24 (6%) of the cases. Unfortunately, in 184 (46.3%) of the cases, the victim-offender relationship could not be defined. When the victim-offender relationship was broken down by gender, females were victimized by a family member 3 to 4 times more frequently than males (129 vs. 36); by an acquaintance almost two times more than males (15 vs. 9); and by a stranger in similar proportions (12 vs. 12).

Time of assault (Hour, Day, & Month) and Physical location of assault

139 (35%) of the assaults occurred between 1800 and 2400 hours. Over one-half of assaults (56%) occurred between Friday and Sunday. Among the cases in which the physical location of the assault could be determined, 154 (38.8%) of the incidents occurred in the home. The other 86 (21.7%) occurred in various locations. In 157 (39.5%) of the cases, the physical location was not recorded.

Assessment of Survey Data

A total of 222 people responded to a written questionnaire: 137 females, 73 males, and 12 whose gender was not indicated. They ranged in age between 13 and 79 years old. Only 81 (36.5 %) people indicated that they were assault victims. However, 116 (52.5%) reported knowing someone who was a victim of assaultive violence in the last 5 years. Among the 81admitting to be assault victims, 39 (48.1%) were females, 36 (44.4%) were males, and 6 (7.4%) gender not identified. Almost 73% (59/81) of the cases were said to have been reported to the authority, and only 16% (13/81) of the offenders were actually caught and punished. Only 73 (32.9%) of the subjects thought assaultive violence was a serious problem in the FDSU. 171 (77%) of the subjects expressed their willingness to report assault incidents to the authority. Only 31 (14%) of the subjects thought the police responded adequately to assault incidents in the community. 101 (45.5%) of the subjects favored the formation of a community violence prevention task force whereas 81 (36.5%) preferred to leave it up to the police and the courts to punish the offenders. Conclusions are tentative because the survey sample was small and not totally representative of the FDSU.

Referral Service Utilization (Social Service, Mental Health) and Estimated Cost

Three categories of referral services are available to assault victims in the FDSU: police/legal, mental health, and social services. Only 23.7% of the cases were reported to the police. The legal implication of the majority of assault incidents (65.5%) was not documented. Very few victims (6.5%) were willing to press charges. That means over 90% of the victims were not sure of the appropriate recourse. The mental health service received a total of 440 domestic violence referrals in 1995, compared to 155 cases reported in this study. Unfortunately, not enough information was provided to allow a cross-reference of patients in these two programs. The estimated cost was based on the monthly visits made by mental health workers to the victims. There is no way to tell which patients were visited more than once. The overall cost of the provided services was estimated at $13,446 in 1995.

CONCLUSIONS:

This study, though limited in scope, indicates that assault injuries constitute a significant public health concern for the FDSU. Because of differences in data collection protocols, some areas of less interest to the local hospitals and Navajo police were not adequately documented. As a result, the injury data surveillance system, which depends largely on these sources, lacks details critical to undertaking a comprehensive assault injury study. Unfortunately,

even with adequate data sources, assault cases are often difficult to document due to the lack of sufficient resources or a well-trained staff committed to carrying out follow-up investigations.

This study prompts me to conclude that:

(1) Assault injuries are primarily a symptom of social and behavioral dysfunction. That means the causes or factors associated with assaultive violence are diverse and very complex, indeed. There is no doubt that biological, psychosocial, cultural, and socioeconomic correlates play an important role in fostering an environment conducive to violent behavior. Therefore, a comprehensive analytical research study is needed not only to identify specific risk factors, but also to explain the mechanisms by which they contribute to interpersonal violence.

(2) At the community level, the challenge is even more perplexing. Therefore, finding solutions specifically designed to address local concerns about violence is not an easy task. However, local communities do not have to wait until they understand the complex causes of violence to engage in bold experiments to prevent it. Building on existing public health policy principles, it is imperative that public health leaders develop pragmatic strategies which empower local constituencies to play a decisive role in building violence-free communities.

The disintegration of traditional value systems and the apparent consequences of economic deprivation underlie many social ills, including violence among reservation communities. Although the study was not designed to explain the cause and effect relationship behind the etiology of assaultive violence in the FDSU, it nevertheless points to a number of potential associations between the frequency and severity of assault injuries, on one hand, and the factors contributing to assaultive violence on the other. For instance, alcohol addiction and illicit drug use are known to contribute to mental or behavioral problems, which often predispose to violence, crime, and even suicide. Obviously, alcoholism is a major problem on many Indian reservations. Moreover, poor conflict resolution skills often lead to brawls and other types of interpersonal violence during arguments or disputes. Marital problems and poor family structures are a good recipe for domestic violence and child abuse. Juvenile delinquency and peer pressure can sometimes lead to gang affiliation and violence. Other factors such as age, gender, poverty, illiteracy, weapon accessibility, physical surroundings, and time also play a role in assaultive violence.

Any approach to violence among Native Americans should take into consideration not only the classic social and behavioral theories, but the total human experience, including history, culture, political and socio-economic conditions. For instance, violence-related injuries on the Navajo reservation today are -- like alcoholism, obesity, diabetes, heart disease, and suicide-- symptoms of a much deeper crisis which has afflicted Native Americans since the conquest of the Western frontier. A poignant case can be made to put the predicament of Native Americans in a historical perspective. When new elements are suddenly introduced into one's environment, a wholesale disruption of value systems can be expected to have a lasting impact, even on future generations. It is true that the pressure of modern lifestyles has created conditions which did not exist over 200 years ago. At the same time, not enough has been done to equip Native Americans to deal with the realities of a world that has reversed their fortune.

Navajos, like many other Indian tribes, have done their best with so little in a land of plenty. Unfortunately, the political and economic arrangements stemming from treaties with the federal government have never been adequately implemented to help fulfill the aspirations of a marginalized society simultaneously forced to forget its past and confront its future. Today, living conditions on the Navajo reservation reflect an economically disenfranchised segment of the American population. Most socio-economic indicators point to a gloomy outlook. The 1990 Census estimated the unemployment rate for the Navajo Nation at 30% compared to 6.6% for the U.S. population. The percent of the population below the poverty level was 58% versus 13.1% for the U.S. Only 23% of the Navajo population, counted (age 25 and over) in the contiguous reservation and three satellite areas, had a high school diploma as compared to 30% for the U.S. population. In such an indigent environment, stress and pent-up frustrations can sometimes lead to a feeling of hopelessness, disease, poor state of mind, and unpredictable behavior.

In a permissive culture such as ours, teenagers thrive on peer pressure at the expense of the authority figure. Their initiation into the young adult world sometimes takes the form of rituals such as smoking, drinking, sex, baggy clothing, and hardcore music. In extreme cases, the rite of passage is marked by reprehensible tendencies including truancy, vandalism, aggressive behavior, experimentation with drugs, and gang affiliation. The lack of strong criminal safeguards, deficient law enforcement facilities, an understaffed police force, and the inadequacy of the juvenile justice system have not helped deter violent crime on the Navajo reservation. For example, alcohol is prohibited by law; yet, bootlegging is widespread and lucrative. Also, the juvenile curfew law sounds good in principle but lacks adequate enforcement mechanisms. To that, add a class of repeat offenders created by a "revolving door justice system." When legal institutions are lax, criminality becomes increasingly bold and creative. This may explain why assaults are randomly committed in our service area.

Finally, the culture of violence may simply be a learned behavior. "The acceptance of violence as a legitimate behavior in certain situations has been pervasive throughout history and is deeply embedded in the American value system." [30] In today's society, the media is notorious for glorifying violence as a source of entertainment. Constant exposure to acts of violence on television, the pervasiveness of the alcohol and drug culture, and the easy availability of guns make those who are poorly equipped to handle personal frustrations so susceptible to acting out television-learned fantasies in the real world.

RECOMMENDATIONS:

A multilevel approach is needed to reduce assault injury rates in the FDSU:

- Reduce the incidence or likelihood of interpersonal violence (=*primary prevention)*.
- Detect or identify and appropriately treat assault injury victims (=*secondary prevention)*.
- Rehabilitate assault injury victims and offenders in order to break the cycle of violence (=*tertiary prevention)*.

The following recommendations suggest specific ways to deal with the problem at the community level. Clearly what is lacking and desperately needed is as follows:

R1. Many assault cases and other isolated incidents of interpersonal violence go unreported. To improve detection and reporting, the FDSU needs a pool of primary care physicians and nurses, Community Health Workers (CHW), and police officers especially trained to identify and appropriately deal with suspected cases of assaultive violence.

R2. The data collection protocols for the different service unit agencies need to be integrated to provide for easy cross-reference and documentation of injury information.

R3. All medical care and referral services for assault victims should be documented and their cost estimated. All referral services should be encouraged to develop their own database. Because of a dual system of government services (i.e. tribal and federal), there is often a wasteful duplication of services.

R4. The database lacks adequate information on offenders. This suggests that the police and social services may not have enough resources to carry out follow-up investigations. The Injury Prevention and Control (IPC) program coordinator should work with these agencies to find out ways to help them improve their efforts in this regard.

R5. All victims and identified offenders should be screened for alcohol and drug use. Alcoholics and drug addicts should be referred to community counseling and drug treatment centers for assistance. People with depression and anxiety disorders should receive appropriate medical attention.

R6. Because we cannot predict who will join the gangs, all teenagers should be considered at risk. That means the community violence prevention task force should start addressing factors predisposing to gang violence early. Civic and moral education, as well as cultural appreciation should be part of the public school curriculum. Kids need to be taught conflict resolution skills early on. In order to discourage delinquent behavior, a variety of after school activities should be organized to keep young people occupied.

R7. Community participation is critical if assault-injury prevention efforts are to succeed. The public must be educated on the benefits of assault-injury prevention.

R8. The Navajo police force is overworked and understaffed. Moreover, its facilities are inadequate to meet the correctional needs of our service area. As the lack of modern infrastructures, electricity, telephone, and television continue to keep many reservation community residents isolated, the police urgently need more resources to patrol and investigate assault incidents and other crime problems in these disenfranchised communities.

R10. Poverty, unemployment, and illiteracy are problems beyond local control. These issues should be debated frequently in a public policy forum to force political leaders to come up with creative solutions to economic development on the reservation. For prevention to be achievable, government must provide the leadership and resources necessary for community improvement activities, job training, and remedial education.

R11. Educational materials (i.e. videos, brochures, posters, billboards, audio cassettes, etc.) about violence should be developed and generously disseminated at workshops, health fairs, and other public events throughout the service unit to increase public awareness about assaultive violence. People not only need to know the facts about violence but also become aware of the resources available in time of need.

R12. The IPC program coordinator should set up an evaluation protocol to make sure these recommendations are thoroughly discussed at IPC activity meetings so that effective strategies conducive to the prevention of violence-related injuries can be developed and implemented.